

## High Tunnel Offers A Competitive Edge

### Maryland Farmer Extends Growing Season

**S**ustainability for small family farms is a major concern for farmers in Maryland and across the Nation. Will Morrow, the owner and operator of Whitmore Farms, a 30-acre crop and livestock operation in Frederick County, thinks using Seasonal High Tunnels will help him to extend his growing season to provide locally grown, high quality products and keep his ag operation viable.

Whitmore Farm is a certified organic farm that specializes in heritage and American breed livestock raised on pasture land. When describing his farm, Morrow said "...part of our farm's mission is to use sustainable ag practices that respect the land and provide healthy food to our customers that is not based on a commercial, 'factory farming' model."

"While attending the Future Harvest Meeting, I heard about the conservation assistance offered by USDA's Natural Resources Conservation Service (NRCS) to build Seasonal High Tunnels," said Morrow. "Farmers were using tunnels to extend their growing season and sell vegetables and plants, beyond the traditional open field growing seasons. Two years ago, I built a high tunnel on my own,



**High tunnels are different from greenhouses because, typically, they are unheated, nonpermanent structures. Additionally, high tunnel crops are grown directly in the soil, rather than in pots or on benches like they are in greenhouses.**

without NRCS assistance, and the structure failed. I wanted to try building another high tunnel and decided to work with NRCS."

Morrow met with NRCS District Conservationist Jim Myers at the USDA Agriculture Service Center in Frederick County and learned that funding and technical assistance was available to him through the 2008 Farm Bill's conservation programs.

A Seasonal High Tunnel is a crop production system that uses a covered high tunnel structure that is at least six feet high, covers several crop rows and is wide enough to allow the crop to grow to maturity and accommodate spraying,

cultivating and harvest operations all within the tunnel's structure. Producers can install heating, ventilation or electrical systems within their tunnel at their own expense.

"Will Morrow was concerned about extending his season to produce high quality produce," said Myers. "Building a Seasonal High Tunnel on his farm allowed him to get an earlier start in the year and grow later into the season. The tunnel produced healthier tomatoes and produce with less disease than those typically grown in an open field. Overall, using a Seasonal High Tunnel was a good fit for the objectives of his ag operation."

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NRCS first offered Season High Tunnels in 2010 and Morrow built one with funding through USDA's Agricultural Management Assistance (AMA) Program. The program also offers supporting practices to ensure that the resource concerns are addressed while implementing and managing the Seasonal High Tunnel. These practices include irrigation water management, critical area planting, nutrient management, and many more.

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Morrow is now in his second season of growing vegetables for restaurants and farmers markets in his high tunnel.

“I grew plants that people appreciate for their flavor as well as being locally grown, such as 8 different varieties of tomatoes, peas, arugula, beets, carrots and figs.”

“I learned a lot in my first year of growing inside a high tunnel. Things like setting the tunnel to a north-south orientation to avoid shading, having a concrete threshold and a tight seal on the door, and that inside temperatures could be up to 25 degrees warmer than outside. These were all important and helped me to have a successful harvest this year,” added Morrow. “I’m still learning as I continue to grow in the high tunnel, but I hope to be one of the earliest producers offering locally grown tomatoes to restaurants and farmers markets.”

Seasonal High Tunnels can potentially expand the availability of healthy, locally grown crops while reducing pesticide use and keeping vital nutrients in the soil. A single layer of 6 mil greenhouse grade, UV resistant polyethylene plastic can provide one hardiness zone of protection from cold temperatures. Farmers can achieve an additional zone of protection by using a row cover or second layer of plastic inside the tunnel.

Seasonal High Tunnels have become one of the most popular conservation practices with demand outpacing funding. The use of Seasonal High Tunnels also supports the USDA initiative of “Know Your Farmer, Know Your Food” by extending local growing seasons. 💧



**Figs are one crop Whitmore Farms grows for their exceptional flavor when grown locally.**



**NRCS District Conservationist Jim Myers (left) discusses the use of a Season High Tunnel with Will Morrow at Whitmore Farms in Frederick County.**